

TG Black 420-430

Monocrystalline Dual-glass Module

Features of Module

- N-Type Topcon technology with low degradation
- Glass-glass technology for rough conditions
- 7%-25% more yield through bifacial power generation
- Engineered in Austria, Europe

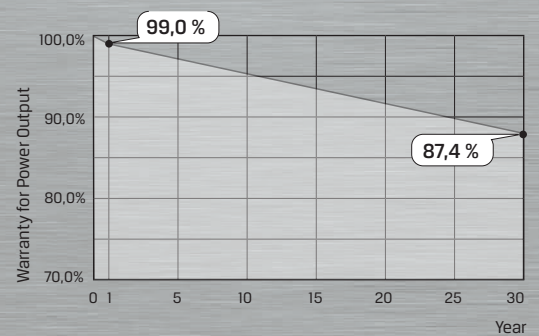
Product and Linear Power Output Warranty

25/30 25-year Product Warranty
30-year Warranty for linear Output



Linear Power Output Warranty

1st year <1%, 0.4% power degradation
per year from 2 to 30 years



Electrical Data (STC/NMOT)

	STC	NMOT	STC	NMOT	STC	NMOT
Type	420		425		430	
Maximum power P_{Max} [Wp]	420	316,00	425	320,16	430	324,00
Performance sorting [Wp]	0->+3		0->+3		0->+3	
Open circuit voltage V_{oc} [V]	38.17	36.24	38.33	36,40	38.49	36,56
MPP voltage V_{MPP} [V]	31.52	29.34	31.68	29,50	31.84	29,66
MPP current I_{MPP} [A]	13.32	10.77	13.42	10,85	13.51	10,92
Short circuit current I_{sc} [A]	14.15	11.37	14.20	11,43	14.25	11,49
Module efficiency η_{Modul} [%]	21.5		21.8		22.0	

Temperature Coefficient (Tc)

Tk der Leistung γP_{max} (%/°C)	-0.30
Tk der Leerlaufspannung αV_{oc} (%/°C)	-0,25
Tk des Kurzschlussstroms βI_{sc} (%/°C)	+0,046

Maximum Ratings

Operational Temperature (°C)	-40~+85
Maximum System Voltage (V DC)	1500
Wind/ Snow Load (Pa)	2400/ 5400
Max Series Fuse Rating (A)	30
Fire Class	Class A
Bifacialität (%)	80±5
NOCT (°C)	45

Mechanical Parameters

Solar Cells (mm)	Topcon 182x91
No. of Cells	108 (6x18)
Module Dimensions (mm)	1722 (±2) x 1134 (±2) x 30
Weight (kg)	24
Glass	2+2 mm high transmittance, AR coated tempered glass
Frame	Anodized aluminum alloy frame
J-Box	IP 68, 3 diodes
Cables/ Cable length [mm]	4,0 mm ² / 1200 mm

Packaging

Container 40'HQ (pcs)	936
Palette (pcs)	36
Pack dimensions: 1750x1120x1254mm; Weight Netto: 882kg; Weight Brutto: 924kg	

Your Dealer:

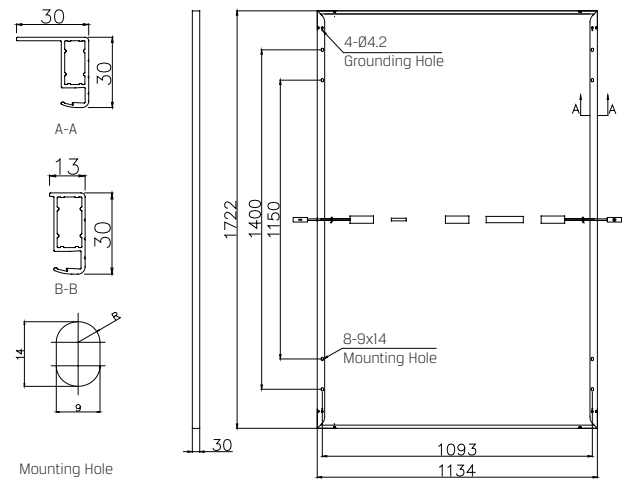
Mehrleistung (STC-Referenz zu 420W Front)

Performance Gain [%]	5%	10%	15%	20%	25%
Maximum power P_{Max} [Wp]	455	477	483	504	525
Open circuit voltage V_{oc} [V]	38.32	38,32	39.32	39,32	39.32
MPP voltage V_{MPP} [V]	32.70	32,70	31.70	31,70	31.70
MPP current I_{MPP} [A]	13.91	14,58	15.24	15,90	16.56
Short circuit current I_{sc} [A]	14.09	15,40	16.10	16,80	17.50

These measurements are valid under standard test conditions STC. All electrical data ±10%. Measurement uncertainty PMPP (PMax): +/- 3%, (Airmass AM 1.5; radiation of 1000W/m²; cell temperature 25°C).

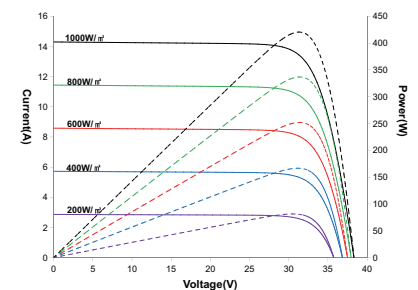
NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m², ambient temperature 20 °C, wind speed 1 m/s.

Drawings

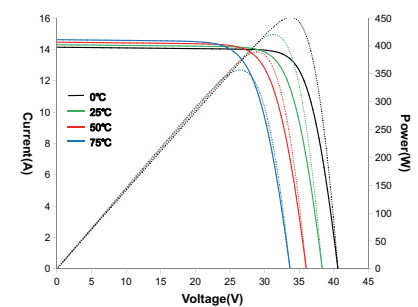


I-V-Curve

Testtemperatur 25°C



Bestrahlungsstärke: AM1.5, 1000 W



Statement:

With technological progress and product updates, there may be deviations between the technical parameters of Trigoo's module products and the technical parameters contained in this specification. Trigoo Solar Technologies has the right to adjust the technical parameters at any time without notifying the customers, the final interpretation of the technical specification is vested in Trigoo Solar Technologies.

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